# Neptune® T-10®

Sizes: 1½" and 2"

## Features & Benefits

- Roll-Sealed Register

  Magnetic drive, low torque
- registration ensures accuracy
  m Impact-resistant, flat, glass lens
- for legibility
- 1:1 Ratio, low flow indicator. detects leaks
- Bayonet mount allows in-line serviceability
- Tamperproof seal pin deters theft
- Date of manufacture, size, and model stamped on dial face

### **Cast Bronze Maincase**

- M Sturdy, durable, corrosion resistant
- Resists internal pressure stresses and external damage
- Handles in-line piping stress
- Electrical grounding continuity
- Residual value

### **Nutating Disc Measuring Chamber**

- Widest effective flow range for greater utility revenue
- Excellent low flow accuracy
- Corrosion resistant
- Floating chamber design is unaffected by meter position or in-line piping stress
- Three-piece chamber for easy serviceability

### **Systems Compatibility**

 Adaptability to all Neptune Systems provides flexibility

### **Performance**

Every Neptune T-10 water meter meets or exceeds the latest AWWA Standard, C700-90. Its nutating disc, positive displacement principle is time proven for accuracy and dependability since 1892, ensuring maximum utility revenue.

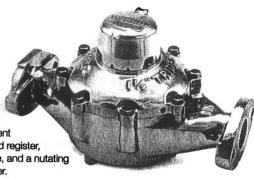
### Construction

The Neptune T-10
water meter consists
of three major component
assemblies: a roll-sealed register,
a cast bronze maincase, and a nutating
disc measuring chamber.

The direct-reading register assembly is roll-sealed, eliminating lens fogging, and is coupled magnetically to the measuring chamber. The register contains a low flow indicator for leak detection, and for reading convenience, can be mounted on the meter in any of four positions. Also available are remote reading registers for the Neptune ARB® (Automatic Reading and Billing) Systems, ProRead® ARB, Pulser-RM visual remote system, and TRICON-S®, TRICON-E2®, and FloSearch® systems. The register is secured to the maincase via a tamperproof seal pin.

The corrosion-resistant cast bronze maincase will withstand most service conditions: internal water pressure, rough handling, and in-line piping stress.

The innovative floating chamber design of the nutating disc measuring element protects the chamber from frost damage while the unique chamber seal extends the low flow accuracy by sealing the chamber outlet port to the maincase outlet port. The nutating disc measuring element utilizes corrosion-resistant materials throughout and a thrust roller to minimize wear.



### Warranty & Maintenance

Neptune T-10 water meters are warranted by Schlumberger for performance, materials, and workmanship. Schlumberger further offers an optional post-warranty maintenance program for extended service life.

When desired, owner maintenance is easily accomplished either by unitized replacement of major components or by parts repair of an individual component.

### **Guaranteed Systems Compatibility**

All Neptune T-10 meters are guaranteed adaptable to our Pulser-RM, ARB, ProRead ARB, CMR, TRICON-S, TRICON-E2, FloSearch, NMR, and ADVANCE® Systems without removing the meter from service.

### Specifications

Application

Cold water measurement of flow in one direction.

Maximum Operating Pressure

150 psi (1034 kPa)

Register

Direct reading, center sweep, roll-sealed, magnetic drive with low flow indicator.

Measuring Chamber Nutating disc, synthetic polymer

### **Options**

Sizes

1½" Flanged or screw end 2" Flanged or screw end

Units of Measure

U.S. Gallons

Imperial Gallons

Cubic Feet

Cubic Metres

Register Types

Direct Reading:

Bronze box and cover (standard)

Remote Reading:

Pulser-RM

ARB, ProRead ARB

TRICON-S

TRICON-E2

Reclaim

Measuring Chamber Synthetic Polymer

Companion Flanges

Cast Iron or Bronze

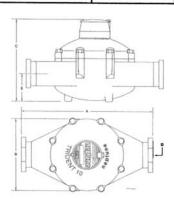
### **Operating Characteristics**

Meter	Normal Operating Range	AWWA	Low Flow
Size	@100% Accuracy (±1.5%)	Standard	@95% Accuracy
11/2"	2 to 100 US gpm	5 to 100 US gpm	3/4 US gpm
	0.46 to 22.73 m <sup>3</sup> /h	1.1 to 22.7 m <sup>3</sup> /h	0.17 m <sup>3</sup> /h
2"	21/2 to 160 US gpm	8 to 160 US gpm	1 US gpm
	.57 to 36.36 m³/h	1.8 to 36.3 m <sup>3</sup> /h	0.23 m <sup>3</sup> /h

### Registration

Registration (per sweep hand revolution):							
		11/2"	2"				
100	US Gallons	1	1				
100	Imperial Gallons	/	1				
10	Cubic Feet	1	1				
. 1	Cubic Metre		1				
0.1	Cubic Metre	1					

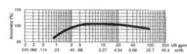
register Capat	city (6-wheel odon		
		11/2"	2'
100,000,000	US Gallons	1	1
100,000,000	Imperial Gallons	1	1
10,000,000	Cubic Feet	/	1
	Cubic Metres	1 1	1
100,000	Cubic Metres	1/1	

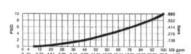


### **Dimensions**

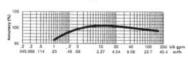
Meter Size		_ A	В		С			)	E	Approx.
	in/mm	in/mm	Std in/mm	ARB in/mm	Pul in/mm	Threads per inch	Thread Type	ln/mm	Weight lbs/kg	
11/2" Screw End	12 <sup>5</sup> / <sub>8</sub> 321	81/16 205	81/s 206	89/16 217	9 <sup>5</sup> / <sub>16</sub> 252	111/2	11/2" NPT	29/16 65	31 14.1	
11/2" Flanged End	13 330	8 <sup>1</sup> / <sub>16</sub> 205	81/8 206	89/16 217	9 <sup>5</sup> / <sub>16</sub> 252	-	_	2 <sup>9</sup> /16 65	35 15.9	
2" Screw End	151/4 387	9 <sup>7</sup> / <sub>16</sub> 240	9 <sup>5</sup> / <sub>16</sub> 237	9 <sup>3</sup> / <sub>4</sub> 248	11½ 283	111/2	2" NPT	31/a 79	40 18.1	
2" Flanged End	17 432	9 <sup>7</sup> /16 240	9 <sup>5</sup> / <sub>16</sub> 237	9 <sup>3</sup> / <sub>4</sub> . 248	111/s 283	-	-	31/s 79	44 20.0	

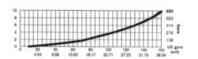






### 2"





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### **TURBO-METERS**

### **QUICK REFERENCE GUIDE**

Nominal Size	Model Number	Normal Operating Range (GPM)	Initial Sensitivity® (GPM)	Low Flow Accuracy @ 95% (GPM)	Maximum Continuous Flow (GPM)	Extended Intermittent Flow (GPM)	(PSI) Head Loss % Maximum Flow
1-1/2" 1-1/2" 1-1/2" 2" 3" 3" 4" 4" 6" 6" 6" 6" 10"	W-120C W-120DR W-120DRS W-160DR W-160DRS W-350DR W-350DRS 125-W Fire Hydrant W-1000DR W-1000DRS W-2000DRS W-2000DRSL W-3500DR W-5500DR W-10,000DR	4-120 4-120 4-120 4-160 4-160 5-350 10-300 15-1,000 30-2,000 30-2,000 30-2,000 35-3,500 250-10,000	1-2 1-2 1-2 1-2 1-2 1-2 2-3 2-3 2-3 4-5 4-5 6-7 6-7 7-8 8-9 25-50	3 3 3 3 3 3 4 4 4 4  10 10 10 20 20 30 35 200	1200 1200 1200 1200 1200 160 160 160 350 350 350 1,000 1,000 2,000 2,000 3,500 5,500 10,000	160 160 160 200 200 450 450 450 450 1,250 1,250 2,500 2,500 4,400 7,000 12,500	5.6 13.5@ 15.4@ 5.6 6.5 5.9 7.1 8.0 6.3 6.5 3.8 8.4 6.2 5.3
4* 6* 8* 10*	W-1000DRFS W-2000DRFS W-3500DRFS W-5500DRFS	15-1,000 30-2,000 35-3,500 55-5,500	4-5 6-7 7-8 8-9	10 20 30 35	1,000 2,000 3,500 5,500	1,250 2,500 4,400 7,000	6.3 6.7 8.5 6.9
4° 6° 8° 10°	Fireline Meter Fireline Meter Fireline Meter Fireline Meter	5-1,000 8-2,000 4-3,500 4-5,500	1/2-3/43) 3/4-2(3) 3/4-2(3) 3/4-2(3)	1-1/2-2③ 2-3③ 2-3③ 2-3③	1,000 2,000 3,500 5,500	1,250 2,500 4,400 7,000	8.5 9.4 12.9 10.9
4° 6° 10°	Compact Fireline Compact Fireline Compact Fireline Compact Fireline	4-1,000 4-2,000 4-3,500 4-5,500	1-2 1-2 1-2 1-2	3 3 3 3	1,000 2,000 3,500 5,500	1,250 2,500 4,400 7,000	8.4 12.8 12.9 12.4

### Notes:

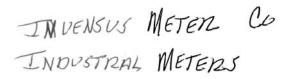
- NOTES:

  0 W-120 & W-160 measuring chambers are the same and interchangeable.

  0 W-120 DR & DRS have built-in high flow restrictors.

  9 Ranges depict optional bypass meter types and sizes.

  1 Initial sensitivity based on typical performance history; no warranty or guarantee claimed at listed flow rates.



### **COMPOUND METERS**

### **QUICK REFERENCE GUIDE**

Nominal Size/Model	(GPM) Normal Operating Range	Low Flow (GPM) Accuracy @ 95%	AWWA Maximum Continuous Flow (GPM)	Maximum Intermittent Flow (GPM)	Minimum Accuracy Crossover	(PSI) Headloss @ Maximum Intermittent Flow
2" SRH	2-160	1/4	80	160	95%	5.0
3" SRH	4-320	1/2	160	320	95%	5.3
4" SRH	6-500	3/4	250	500	95%	3.2
6" SRH	10-1,000	1-1/2	500	1,000	95%	13.0
8" Manifold	16-1,600	2	800	1,600	95%	13.2

For more information, refer to data sheet W-932 or W-963 or latest version. You may contact your local Territory Manager for further assistance.

> INVENSUS METER CO INDUSTRAL METERS

# HOUSE METERS

# Neptune® T-10®

Sizes: %", ¾", and 1"

## Features & Benefits

### Roll-Sealed Register

- Magnetic drive, low torque registration ensures accuracy
- Impact-resistant register design with flat glass for legibility
- 1:1 ratio, low flow indicator detects leaks
- Bayonet mount allows in-line serviceability
- Tamperproof seal pin deters theft
- Date of manufacture, size, and model stamped on dial face

### **Cast Bronze Maincase**

- Sturdy, durable, corrosion resistant
- Resists internal pressure stresses and external damage
- Handles in-line piping variations and stresses
- Residual value

### **Nutating Disc Measuring Chamber**

- Positive displacement
- Widest effective flow range for greater utility revenue
- Extended low flow accuracy
- Corrosion resistant
- Floating chamber design is unaffected by meter position of in-line piping stresses

### **Systems Compatibility**

 Adaptability to all Schlumberger systems for flexibility

### Performance

Every Neptune T-10 water meter meets or exceeds the latest AWWA Standard, C700-90. Its nutating disc, positive displacement principle is time proven for accuracy and dependability since 1892, ensuring maximum utility revenue.

### Construction

The Neptune T-10 water meter consists of three major assemblies:

a roll-sealed register, a cast bronze maincase, and a nutating disc measuring chamber.

The roll-sealed register eliminates lens fogging, uses naturally lubricated molded gears, and contains a low flow indicator for leak detection. For reading convenience, the register can be mounted in one of four positions on the meter. All T-10 water meters can accommodate standard or remote reading registers for the Neptune ARB\* (Automatic Reading and Billing) System, ProRead™ ARB, Pulser-RM visual remote system, TRICON-S\*, TRICON-E2\* and FloSearch™ Systems.

The corrosion-resistant cast bronze maincase will withstand most service conditions: internal water pressure, rough handling, and in-line piping stress. For frost protection, synthetic polymer or cast iron bottom caps are available.

The innovative floating chamber design of the nutating disc measuring element protects the chamber from frost damage while the unique chamber seal extends the low flow accuracy by sealing the chamber outlet port to the maincase outlet port. The nutating disc measuring element utilizes corrosion-resistant materials throughout and a thrust roller to minimize wear.

## Warranty & Maintenance

Neptune T-10 water meters are warranted by Schlumberger for performance, materials, and workmanship. Schlumberger further offers an optional post-warranty factory "Revenue Asset Maintenance" (RAM) program for extended service life.

When desired, owner maintenance is easily accomplished either by unitized replacement of major components or by repair of an individual component's parts.





### **Guaranteed Systems Compatibility**

All Neptune T-10 meters are guaranteed adaptable to our Pulser-RM, ARB, ProRead ARB, CMR, TRICON-S, TRICON-E2, FloSearch, NMR, and ADVANCE® Systems without removing the meter from service.

### **Specifications**

Applications Cold water measurement of flow in one direction

**Maximum Operating Pressure** 150 psi (1034 kPa)

Register

Direct reading, center sweep, roll-sealed, magnetic drive with low flow indicator

Measuring Chamber Nutating disc, synthetic polymer

### **Options**

Sizes 5/8", 5/8" x 3/4" 3/4", 3/4" SL, 3/4" x 1" 1", 1" x 1%"

Units of Measure

U.S. Gallons Cubic Feet Imperial Gallons Cubic Metres

**Register Types** Direct Reading:

Synthetic polymer box and cover Bronze box and cover

Remote Reading:

ARB, ProRead ARB Pulser-RM TRICON-S

TRICON-E2 Reclaim

**Bottom Caps** Synthetic Polymer (5/8" only)

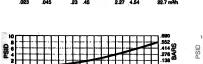
Cast Iron **Bronze** 

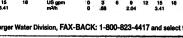
Connections Bronze, straight or bent

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# 5/8" 4 8 810 20 2.27 4.54





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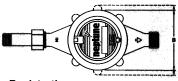
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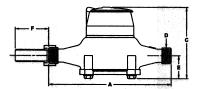
### **Operating Characteristics**

Meter	Normal Operating Range	AWWA	Low Flow		
Size	@100% Accuracy (±1.5%)	Standard	@95% Accuracy		
5/8"	1/2 to 20 U.S. gpm	1 to 20 U.S. gpm	1/s U.S. gpm		
	0.11 to 4.55 m³/h	0.23 to 4.5 m <sup>3</sup> /h	0.03 m <sup>3</sup> /h		
3/4"	<sup>3</sup> /4 to 30 U.S. gpm	2 to 30 U.S. gpm	1/4 U.S. gpm		
	0.17 to 6.82 m <sup>3</sup> /h	0.45 to 6.8 m <sup>3</sup> /h	0.06 m <sup>3</sup> /h		
f°	1 to 50 U.S. gpm	3 to 50 U.S. gpm	3/8 U.S. gpm		
	0.23 to 11.36 m³/h	0.68 to 11.4 m <sup>3</sup> /h	0.09 m <sup>3</sup> /h		

### **Dimensions**

	Α	В		C	District		)	E	F	Approx
Meter Size	in/mm	in/mm	Std. in/mm	ARB in/mm	Pul in/mm	Threads per inch	OD in/mm	in/mm	in/mm	Weight lbs/kg
5/8"	7½. 191	35/a 92	47/s 124	5 <sup>3</sup> / <sub>8</sub> 137	63/4 171 ·	14	1.030 26	15/e 41	21/2 64	33/4 1.7
5/8" x 3/4"	71/2 191	35/s 92	4 <sup>7</sup> /8 124	5³/ <sub>8</sub> 137	6 <sup>3</sup> / <sub>4</sub> 171	111/2	1.290 33	15/8 41	25/a 67	4 1.8
3/4"	9 229	4 <sup>3</sup> / <sub>8</sub> 111	51/2 140	5 <sup>13</sup> / <sub>16</sub> 148	73/ <sub>8</sub> 187	111/2	1.290 33	17/a 48	25/s 67	6 2.7
3/4" SL	7 <sup>1</sup> / <sub>2</sub> 191	43/a 111	51/2 140	5 <sup>13</sup> / <sub>16</sub> 148	7 <sup>3</sup> / <sub>8</sub> 187	111/2	1.290 33	17/s 48	25/8 67	51/2 2.5
3/4" x 1"	9 229	43/a 111	51/2 140	5 <sup>13</sup> / <sub>16</sub> 148	73/s 187	111/2	1.626 41	17/a 48	2 <sup>3</sup> / <sub>4</sub> 70	6 <sup>1</sup> / <sub>2</sub> 2.9
1*	10 <sup>3</sup> / <sub>4</sub> 273	6 <sup>1</sup> / <sub>2</sub> 165	63/s 162	65/a 168	8 <sup>3</sup> / <sub>15</sub> 208	111/2	1.626 41	21/s 54	2 <sup>3</sup> / <sub>4</sub> 70	9 <sup>3</sup> / <sub>4</sub> 4.4
1" x 11/4"	10 <sup>3</sup> / <sub>4</sub> 273	6 <sup>1</sup> / <sub>2</sub> 165	63/s 162	65/a 168	8 <sup>3</sup> /15 208	111/2	1.865 47	21/s 54	2 <sup>13</sup> /16 71	10 <sup>1</sup> / <sub>4</sub> 4.6





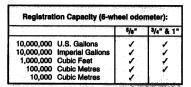
### Registration

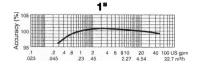
Registration (per sweep hand revolution):						
	5/8"	3/4" & 1"				
10 U.S. Gallons	1	1				
10 Imperial Gallons	1	1				
1 Cubic Foot	1	1				
0.1 Cubic Metre	1	1				
0.01 Cubic Metre	1					

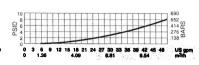
3/4"

4 6 810 20 2.27 4.54

.2 .4 .6 1 2 .045 .23 .45







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